

RIVER STAGES AND FLOODS FOR JULY 1948

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River stages during July were below normal along the Atlantic and Gulf Coasts except in Georgia and southern Texas. Over the rest of the country it was mostly above normal except at scattered points. The greatest negative departure was along the lower Mississippi at Vicksburg, Miss., where it averaged 5.2 feet below normal. The greatest positive departure was along the Arkansas at Van Buren and Little Rock, Ark., where the river stages averaged 12.3 and 11.1 feet above normal respectively. Precipitation during the month was very spotty, with the heaviest amounts (twice normal) reported in the central portion of the country and along the Canadian Border from Minnesota west-southwestward to northern California.

A flash flood occurred in the extreme headwaters of the Hocking River in the vicinity of Lancaster, Ohio, which resulted in considerable damage. The highest stage of record since 1903 occurred in portions of the Smoky Hill River Basin in Kansas below Kanopolis Dam, and record stages were exceeded at practically every point in the Neosho River Basin. Moderate flooding occurred in the Osage River in Kansas and the middle portion of the Kansas River Basins.

East Gulf of Mexico.—Moderate to heavy rain from the 9th through the 16th caused light to moderate flooding along the Chattahoochee River in Alabama and the Apalachicola in Florida. The rainfall over the Chattahoochee basin during the 8-day period averaged from 6 to 15 inches, with the heaviest 24-hour amounts (1 to 8 inches) occurring on the 10th and 11th. Most of the resulting damage (washing of farmlands) was due to the heavy rains rather than to the overflow.

Missouri Basin.—Moderate to severe flooding occurred on the Solomon River in Kansas with crests 5 to 7 feet above bank-full stage. The river, at Minneapolis, Kans., exceeded the previous maximum stage (32 feet, recorded in 1903) by 0.17 foot on the 21st. The crest of 29.6 feet at Niles, Kans., on the 20th was the third highest stage of record. About 63,000 acres of farm land were inundated, causing severe damage to growing crops and heavy damage to highways and bridges. Railway service in the Solomon Basin was interrupted for 16 days.

Light flooding occurred on the Saline River at Tescott, Kans., on the 20th and 21st.

Serious flooding occurred for 7 days along the lower Smoky Hill River, below the junction with the Solomon River. The crest at Enterprise, Kans., approached within ½ foot of the maximum stage of record (30.1 feet, Oct. 21, 1941). The greatest damage occurred to growing crops, with 15,000 acres of fertile farm land inundated.

The flooding along the Republican River was mostly light and of short duration. The overflowing creeks caused moderate damage to highways and bridges, inundating approximately 200 acres.

Moderate overflows occurred on the Kansas River from Ogden to Manhattan, Kans., with light flooding below Manhattan. One bridge span was washed out at Ogden, Kans., and 500 acres were inundated in the basin, with negligible damage to growing crops.

Moderate flooding occurred along the upper portion of the Osage River in Kansas, with severe and prolonged flooding from LaCygne to the Missouri-Kansas state line. The crest of 30.6 feet at LaCygne, Kans., approached the record stage of 31.9 feet established on April 24, 1944. Approximately 40,000 acres were inundated, with severe damage occurring to growing and stored crops. Moderate damage occurred to bridges and highways.

Two lives were lost in the July floods in the Missouri Basin.

Ohio Basin.—A heavy rainstorm on the 21st–22d in the upper Hocking River Basin caused a severe flash flood, with considerable damage in the vicinity of Lancaster, Ohio. This storm was of short duration (2–3 hours), with the rainfall during that period averaging approximately 6 inches. Farther downstream at Athens, Ohio, the Hocking crested at a stage of 16.75 feet, 0.25 foot below bank-full stage, on the evening of the 24th.

Heavy rains on the 20th–21st, ranging from 1 to 5 inches caused a sharp rise in the White River in Indiana to a crest slightly above bank-full stage on the 24th. A flash flood on the 21st on Honey and Sulton Creeks at Smith's Valley, Ind., washed out 2 small bridges and flooded several basements. Another heavy rain on the 28th, ranging from 1 to 3 inches, caused another rise on the White River to 4 feet above bank-full stage at Edwardsport. No damage resulted from the overflows along the White River.

Arkansas Basin.—Severe flooding occurred in Kansas along the Cottonwood and Neosho Rivers due to frequent heavy rains, averaging 8.85 inches over the Cottonwood, 10.35 inches over the Upper Neosho above Iola, Kans., and 8.85 inches over the Lower Neosho above Oswego, Kans., during the last half of July. The Cottonwood exceeded by 1.8 feet the previous record stage of 27.7 feet recorded on April 23, 1944, at Emporia, Kans., and it approached within 0.3 foot of the record stage at Cottonwood Falls, Kans. Record stages were exceeded on the Neosho from Neosho Rapids to Oswego, Kans. Comparison with the previous maximum of record is given in Table 1. Approximately 150,000 acres of farm land were inundated, causing severe damage to growing crops.

Flood stages continued from the June floods until the 6th at Dewar, Okla., on the Deep Fork Creek. Heavy showers again caused the Deep Fork Creek to go above bank-full stage from the 11th through the 21st.

TABLE 1.—Comparative Neosho River crests

(All dates in July unless otherwise specified)

Station	Flood stage	1948 crest		Previous maximum crest of record †	
		Crest	Date	Crest	Date
	Feet	Feet		Feet	
Emporia, Kans.	20	27.9	20	27.1	July 5, 1904
Neosho Rapids, Kans.	22	29.9	21	28.2	Apr. 23, 1944
Burlington, Kans.	27	36.8	21	35.0	Apr. 24, 1944
LeRoy, Kans.	23	30.7	22	29.7	do.
Iola, Kans.	15	24.6	23	22.65	Apr. 25, 1944
Chanute, Kans.	20	30.9	23	29.6	Apr. 26, 1944
Erie, Kans.	20	28.2	24	28.8	Sept. 14, 1926
Parsons, Kans.	24	31.2	27	29.7	Apr. 8, 1927
Oswego, Kans.	17	27.4	27	25.9	Apr. 27, 1944
					Apr. 28, 1944

West Gulf of Mexico.—The East Fork of the Trinity River crested at a stage of 11 feet at Rockwall, Tex., 1 foot above bank-full stage, on the 6th, with negligible damage.

Heavy rains over the Devil's River and Sycamore Creek drainage in the Del Rio, Tex., area on the morning of the 4th resulted in a moderately high rise in both streams, with the second highest stage of record occurring on the Devil's River, since September 1, 1932, at Juno, Tex. (discharge 240,000 cfs.) on the 4th. As this flood moved downstream, it caused considerable damage to the temporary bridges of the Southern Pacific Railroad and the State Highway Department, erected as a result of the damaging flood on June 24. Very little damage would have occurred in this area under normal conditions.

A major rise occurred in the lower Rio Grande as a result of the heavy rains over the basin during the latter part of June. Another rise began on the 4th and 5th which resulted in above bank-full stage at several stations. Damage from both overflows was confined to growing crops.

FLOOD STAGE REPORT FOR JULY 1948

[All dates in July unless otherwise specified]

River and station	Flood stage	Above flood stages— dates		Crest 1	
		From—	To—	Stage	Date
EAST GULF OF MEXICO DRAINAGE					
Chattahoochee:	<i>Feet</i>			<i>Feet</i>	
Eufaula, Ala.	40	13	14	42.1	13-14
Columbia, Ala.	42	14	14	43.3	14
Apalachicola:					
Chattahoochee, Fla.	20	16	17	20.2	17
Blountstown, Fla.	15	12	28	21.3	17
MISSISSIPPI SYSTEM					
Upper Mississippi Basin					
Mississippi: Louisiana, Mo.	12	{ June 29 5 22 25	1 6 23 26	12.2 12.2 12.2 12.3	June 30 6 22, 23 26
Missouri Basin					
Solomon: Beloit, Kans.	18	June 19	June 22	25.2	June 21
Saline: Tescott, Kans.	25	20	21	26.0	21
Smoky Hill:					
Abilene, Kans.	22	20	26	{ 25.3 26.1	22 23
Enterprise, Kans.	26	June 20	June 26	29.6	June 21
Red Willow: McCook, Nebr.	12	9	9	12.6	9
Republican:					
Cambridge, Nebr.	5	{ 9 29	9 29	6.8 5.6	9 29
Clay Center, Kans.	15	{ June 10 June 21 June 25 10 20	June 10 June 21 June 25 10 21	15.1 16.0 15.3 15.1 16.0	June 10 June 21 June 25 10 21
Kansas:					
Ogden, Kans.	18	20	23	22.0	20
Manhattan, Kans.	17	20	24	22.7	20
Wamego, Kans.	16	June 21	June 21	16.8	June 21
Topeka, Kans.	21	June 21	June 21	21.8	June 21
Lecompton, Kans.	17	June 21	June 21	17.6	June 21
Grand:					
Chillicothe, Mo.	18	June 24	June 24	19.8	June 24
Brunswick, Mo.	12	June 24	June 25	13.9	June 25
Pottawatomie: Garnet, Kans.	26	20	21	28.9	20
Osage:					
Quenemo, Kans.	30	{ 21 27	23 27	35.3 31.0	21 27
Ottawa, Kans.	24	22	24	28.5	23
Osawatomie, Kans.	28	{ 21 26	25 28	34.2 32.2	23-24 27
LaCygne, Kans.	25	20	30	{ 30.2 30.6	25 26
Trading Post, Kans.	24	21	31	{ 27.2 28.3	23 27
Osceola, Mo.	22	June 23	-----	28.9 36.0	June 24 June 24
Warsaw, Mo.	31	June 22	-----	35.6 35.4	June 26 June 29
Lakeside (Bagnell Dam), Mo.	60	June 22	4	{ 63.1 62.4	June 24 June 29
St. Thomas, Mo.	23	June 22	3	30.6	June 27-28
Gasconade: Jerome, Mo.	15	June 19	June 19	15.0	June 19

FLOOD STAGE REPORT FOR JULY 1948—Continued

[All dates in July unless otherwise specified]

River and station	Flood stage	Above flood stages— dates		Crest 1	
		From—	To—	Stage	Date
MISSISSIPPI SYSTEM—continued					
Missouri Basin—Continued					
Missouri:	<i>Feet</i>			<i>Feet</i>	
Jefferson City, Mo.	23	June 26	June 26	23.2	June 26
Ohio Basin					
White: Edwardsport, Ind.	12	{ 23 29	25 31	13.5 16.1	24 30
Arkansas Basin					
Little Arkansas: Sedgwick, Kans.	18	18	24	{ 20.4 22.2	18 23
Ninnescah: Peck, Kans.	17	23	23	17.4	23
Walnut: Arkansas City, Kans.	16	16	17	18.0	17
Verdigris:				{ 34.1 40.3	17 20
Independence, Kans.	30	16	25	42.3	23
Coffeyville, Kans.	20	18	25	22.7	24
Claremore, Okla.	38	18	29	44.8	23
Inola, Okla.	41.5	16	30	49.3	25
Cottonwood:					
Cottonwood, Falls, Kans.	9	19	22	15.7	20
Emporia, Kans.	20	19	25	29.5	20
Neosho:					
Emporia, Kans.	20	20	23	{ 27.9 21.8	20-21 23
Neosho Rapids, Kans.	22	20	25	29.9	21
Burlington, Kans.	27	19	26	36.8	21
LeRoy, Kans.	23	19	26	{ 28.65 30.7	20 22
Iola, Kans.	15	19	28	{ 18.0 24.6	18 23
Chanute, Kans.	20	18	29	30.9	23
Erie, Kans.	20	18	29	28.2	24
Parsons, Kans.	24	18	31	{ 30.8 31.2	25 27
Oswego, Kans.	17	18	Aug. 1	{ 22.9 27.3	20 26
Deep Fork: Dewar, Okla.	18	{ June 22 11	6 21	{ 25.2 20.7	June 24 15
Arkansas:					
Great Bend, Kans.	8	19	22	9.1	19
Hutchinson, Kans.	6	{ 1 15 17	1 15 24	6.3 6.0 8.2	1 16 22
Wichita, Kans.	9	{ June 29 19	June 29 24	9.2 11.4	June 29 23
Oxford, Kans.	14	23	24	14.7	24
Arkansas City, Kans.	16	{ 1 16 22	1 20 26	18.6 19.2 19.8	1 16 24
WEST GULF OF MEXICO DRAINAGE					
East Fork: Rockwall, Tex.	10	6	6	11.0	6
Rio Grande:					
Del Rio, Tex.	15	{ 4 5	5 5	24.8 18.1	4 5
Eagle Pass, Tex.	16	5	6	{ 26.8 16.3	5 6
Rio Grande City, Tex.	21	8	8	23.4	8
Hidalgo, Tex.	21	{ June 30 9	1 10	21.8 21.3	1 9-10
Mercedes, Tex.	21	{ June 29 8	2 11	22.3 22.8	1 10
PACIFIC SLOPE DRAINAGE					
Columbia Basin					
Columbia: Boundary, Wash.	32	May 27	2	45.0	June 11-12

¹ Provisional.² Continued at end of month.